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The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YOUNGER AHLUWALIA,
MATTI KIIK, and THOMAS D. KAROL

Appeal 2010-004933
Application 10/766,654
Technology Center 1700

Before CHARLES F. WARREN, JEFFREY T. SMITH, and
KAREN M. HASTINGS, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

DECISION ON APPEAL¹

Applicants appeal to the Board from the decision of the Primary Examiner finally rejecting claims 1-21 in the Office Action mailed November 25, 2008. 35 U.S.C. §§ 6 and 134(a) (2002); 37 C.F.R.

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

§ 41.31(a) (2008).

An oral hearing was held January 12, 2011.

We reverse the decision of the Primary Examiner.

Claims 1 and 2 illustrate Appellants' invention of a heat insulating and fire resistant composite material, and are representative of the claims on appeal:

1. A heat insulating and fire resistant composite material consisting essentially of:

(a) a first layer which comprises a surfactant component, surfactant-generated microcells, a filler component and a binder component; and

(b) a second layer comprising a metallic component adhered to the first layer.

2. A heat insulating and fire resistant composite material comprising:

(a) a substrate;

(b) a first layer adhered to the substrate to provide a coated substrate, said first layer comprising a surfactant component, surfactant-generated microcells, a filler component comprising clay and a binder component, wherein said binder bonds the filler material together and to the substrate and wherein said first layer does not bleed through the substrate; and

(c) a second layer comprising a metallic component adhered to the coated substrate.

Appellants request review of the ground of rejection under 35 U.S.C. § 103(a) advanced on appeal by the Examiner: claims 1-21 over Ahluwalia (US 5,965,257) in view of Langer (US 4,600,634) and Weaver (GB 2 167 060 A) or Dugan (US 4,994,317) or Dombeck (US 6,228,497 B1).
App. Br. 3; Ans. 3.

Opinion

I.

Appellants submit that the Examiner erred in concluding that the

combined teachings of Ahluwalia, Langer, Weaver, Dugan, and Dombeck would have led one of ordinary skill in the art to the claimed heat insulating and fire resistant composite material specified in representative claims 1 and 2. Appellants argue, among other things, the Examiner did not establish that the prior art relied on would have led one of ordinary skill in the art to use clay as a filler in a coating which can contain other fillers and contains binder material for the filler and the substrate, in the expectation that the addition of clay would result in a coating having essentially the same ionic charge as the substrate such that the coating does not bleed through said substrate which is “[o]ne principle of operation for” Ahluwalia, pointing out that claim 2 specifies that the coating “does not bleed through the substrate.”² App. Br., e.g., 8-11 and 15-16; Reply Br., e.g., 5-7.

II.

The Examiner submits that a difference between the coated structural articles of Ahluwalia is the absence of clay filler. The Examiner finds that Ahluwalia’s articles have a substrate, such as fiberglass, coated with a coating containing a filler and a binder that has essentially the same ionic charge as the substrate, and can be used for, among other things, a fire wall and facing sheets. Ans. 3-4. The Examiner finds that Weaver, Dugan, and Dombeck would have disclosed to one of ordinary skill in the art that clay filler provides increased fire resistance in composite materials for heat

² Appellants acknowledge that Ahluwalia’s composites do not have a metallic component but do not argue whether one of ordinary skill in the art would have been led by Langer to add an aluminum sheet to the coated substrate of Ahluwalia as the Examiner contends. Ans. 4 and 7; App. Br., e.g., 9-10 and 16; Reply Brief, e.g., 6.

insulating and fire resistance. Ans. 5. Thus, the Examiner concludes that it would have been obvious to one of ordinary skill in the art to add clay filler to Ahluwalia's coating for increased flame resistance and maintains this position in response to Appellants' position in the Appeal Brief. Ans. 5, 6, and 7.

III.

We agree with Appellants' position. As an initial matter, we note that contrary to Appellants' arguments and as the Examiner holds, the transitional phrase "consisting essentially of" in claim 1 does not preclude the presence of a substrate which supports the claimed first layer because Appellants have not shown that the presence of the substrate will affect the basic and novel characteristics of the claimed heat insulating and fire resistant composite material. Ans. 5-6; App. Br. 6-7; Reply Br. 2-3. Indeed, when considered in light of the disclosure in the Specification, the transitional phrase opens claim 1 to include embodiments in which "[t]he composite materials may further include a substrate to which the first layer is adhered to provide a coated substrate." Spec. ¶ 0021. *See, e.g., In re Herz*, 537 F.2d 549, 551-52 (CCPA 1976) ("[I]t is necessary and proper to determine whether [the] specification reasonably supports a construction" that would exclude or include particular ingredients.); *In re De Lajarte*, 337 F.2d 870, 873-74 (CCPA 1964); *see also PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1354-57 (Fed. Cir. 1998) (Patentees "could have defined the scope of the phrase 'consisting essentially of' for purposes of its patent by making clear in its specification what it regarded as constituting a material change in the basic and novel characteristics of the invention. The

question for our decision is whether PPG did so.”).

On this record, and with respect to claims 1³ and 2, we are of the opinion that the Examiner has not established that one of ordinary skill in the art would have reasonably predicted that any clay that can function as an endothermic filler for fire resistant composites as disclosed by Weaver, Dugan, and Dombeck, would be a compatible filler in Ahluwalia’s coatings, consisting essentially of any filler material and a binder material, on a substrate, wherein the coating must have essentially the same ionic charge as the substrate in order that the coating does not bleed through to the other side of the substrate when applied thereto.⁴ See Ahluwalia, e.g., abstract, col. 1, l. 66 to col. 2, l. 27, col. 3, ll. 41-43, col. 4, ll. 26-46, col. 5, ll. 19-24 and 39-50, col. 6, ll. 5-13, and col. 8, l. 61 to col. 9, l. 9; Weaver, e.g., abstract, 1:116-117, 2:5-63, 2:93-123, 3:2-11, 3:70-78, 4:15-21, and Fig. 2; Dugan, e.g., abstract, col. 1, ll. 47-64, col. 2, ll. 24-37, col. 3, ll. 10-18 and 58-65; Dombeck, e.g., abstract, col. 1, ll. 19-21, col. 2, ll. 31-54, col. 2, l. 64 to col. 3, l. 21, col. 3, ll. 52-64, col. 4, ll. 27-36, and col. 5, ll. 4-19 and 25-28; *see also* Langer, e.g., col. 2, ll. 5-32 and 53-49, col. 3, ll. 3-9, and col. 3, l. 61 to col. 4, l. 7. Indeed, the Examiner has not shown that the clay fillers of Weaver, Dugan, and Dombeck would be compatible with an anionic

³ We determine that appealed claim 1 does not specify that the coating includes a clay filler. Even so, the Examiner included this claim in the ground of rejection advanced on appeal on the basis that the claimed composite material of claim 1 differed from Ahluwalia’s articles in the absence of a clay filler in the coating thereon.

⁴ In this respect, Ahluwalia’s disclosure aligns with the limitation “coating does not bleed through said substrate” of claim 2. Ahluwalia, e.g., col. 5, ll. 19-24.

coating composition containing, for example, Ahluwalia's preferred "high performance heat-reactive acrylic latex polymer" Hycar™ 2679, which is anionic in water, when applied to a fiberglass mat that is also anionic. Ahluwalia discloses that Hycar™ 2679 is compatible with a range of fillers having different ionic charges. Ahluwalia, e.g., col. 3, ll. 5-9, col. 5, ll. 39-50, col. 7, ll. 9-24, col. 8, ll. 43-45, and col. 8, ll. 65-67. We fail to find in Ahluwalia any limitation(s) on the fillers employed other than the coatings containing the same must comply with the "principals [sic] underlying the present invention." Ahluwalia, e.g., col. 9, ll. 41-46.

IV.

Accordingly, the Examiner has not in the first instance provided on the record evidence or a scientific explanation establishing that one of ordinary skill in the art would have modified Ahluwalia's composite articles by using clay as a filler in the coating thereon as disclosed by the teachings of Weaver, Dombeck, and Dugan. Thus, in the absence of a case of obviousness, we reverse the ground of rejection of claims 1-21 under 35 U.S.C. § 103(a). *See, e.g., In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992); *see also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) ("[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.").

The Primary Examiner's decision is reversed.

REVERSED

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